WHAT IS CLAIMED IS:

1. An electromechanical machine comprising:

a fixed stator having conductive windings located in a plurality of parallel, axially-extending winding slots defined about an inner surface of a magnetically permeable core, said stator further comprising first and second coilheads located at opposite axial ends of said magnetically permeable core;

a movable rotor located radially inward of said stator; and

an electrostatic shield arrangement attached to said stator and including a conductive layer separated from said windings by an insulating layer of resin material, said shield arrangement being located in said winding slots and an inside surface of said first and second coilheads to interpose said conductive windings and said rotor.

2. An electromechanical machine as set forth in claim 1, wherein said conductive layer of said shield arrangement comprises a nonmagnetic conductive material located radially inward of said insulative layer.

3. An electromechanical machine as set forth in claim 2, wherein said conductive layer is in electrical communication with said magnetically permeable core and is grounded thereby.

4. An electromechanical machine as set forth in claim 3, wherein said conductive layer of said shield

arrangement comprises a metallic paint applied to a surface of said insulative layer.

5. An electromechanical machine as set forth in claim 4, wherein said metallic paint comprises a copper paint.

6. An electromechanical machine as set forth in claim 4, further comprising a protective top coat applied over said conductive layer on an inner surface of said stator.

7. An electromechanical machine as set forth in claim 1, wherein said insulative layer of said shield arrangement comprises a glass-filled thermoset resin applied to said conductive windings to a predetermined thickness.

8. An electromechanical machine as set forth in claim 7, wherein said thermoset resin substantially entirely impregnates said conductive windings of said stator.

9. An electromechanical machine comprising:

a fixed stator having conductive windings located in a plurality of parallel, axially extending winding slots defined in a magnetically permeable core;

a movable rotor operative to have a magnetic flux induced therein by excitation of said conductive windings of said stator;

said conductive windings having a cured resin applied thereto to yield an insulative layer of predetermined thickness between said conductive windings and said rotor; and

a conductive layer of metallic paint applied to said insulative layer and thereby separated from said conductive windings, said insulative layer and said conductive layer thereby forming an electrostatic shield arrangement interposing said conductive windings and said rotor.

10. An electromechanical machine as set forth in claim 9, wherein said conductive layer is in electrical communication with said magnetically permeable core and is grounded thereby.

11. An electromechanical machine as set forth in claim 9, wherein said metallic paint comprises a copper paint.

12. An electromechanical machine as set forth in claim 9, further comprising a protective top coat applied over said conductive layer on an inner surface of said stator.

13. An electromechanical machine as set forth in claim 9, wherein said cured resin substantially entirely impregnates said conductive windings of said stator.

14. An electromechanical machine as set forth in claim 9, wherein said cured resin is a glass-filled thermoset resin.

15. An electromechanical machine as set forth in claim 14, wherein said predetermined thickness of said insulative layer is at least approximately 0.012 inches.